Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-117 (Cancelled).

Claim 118. (Currently Amended) A method for intrusion prevention associated with a communication attempt between a source node and a destination node ~~managing electronic communications~~ within a computer network, ~~the electronic communications compliant with Internet Protocol (IP) standards,~~ comprising the steps of:

after the construction of but before the sending of a data packet from the source node to the destination node as part of the communication attempt, intercepting the data packet at the source node;

assigning one or more identifiers ~~a unique identifier~~ to the communication attempt, wherein the identifiers include ~~a source node, the unique identifier identifying~~ at least one of a user identifier ~~identification~~ (UID) and a system identifier ~~identification~~ (SID), wherein the UID is associated with a specific authorized user of the source node who is identified as initiating the communication attempt and wherein the SID is associated with computer hardware of the source node making the communication attempt ~~uniquely identifies a specific, authorized user of the source node, wherein the SID is constant and uniquely identifies a specific computing device of the source node, and wherein the SID is not an IP address assigned to the computing device~~;

inserting the one or more identifiers ~~unique identifier~~ assigned to the communication attempt into a header of the data packet to create a modified data packet ~~source node into an IP packet originated by the~~

~~source node as part of a communication attempt by the source node with a destination node~~; and

thereafter:

intercepting the modified data ~~IP~~ packet ~~transmitted by the source node~~ within the computer network after it has been sent by the source node but before it reaches the destination node;

extracting the one or more identifiers ~~unique identifier~~ from the header of the modified data ~~IP~~ packet; and

permitting the communication attempt by the source node with the destination node as a function of the one or more identifiers ~~unique identifier~~ extracted from the header of the modified data ~~IP~~ packet.

Claim 119. (Currently amended) The method of claim 118, wherein the step of permitting the communication attempt by the source node with the destination node includes forwarding the modified data ~~IP~~ packet to the destination node.

Claim 120. (Currently amended) The method of claim 118, wherein the data ~~IP~~ packet is a SYN packet of a TCP/IP communication.

Claim 121. (Currently amended) The method of claim 118, wherein the SID is computed based on one or more constant identifiers obtained from the computer hardware of the source node ~~120, wherein the unique identifier is inserted into a header of the SYN packet~~.

Claim 122. (Currently amended) The method of claim 120 ~~121~~, wherein the one or more identifiers ~~unique identifier~~ is inserted into the TCP header of the SYN packet to create the modified data packet.

Claim 123. (Currently amended) The method of claim 122, wherein the one or more identifiers ~~unique identifier~~ is inserted into the sequence number field of the TCP header.

Claim 124. (Currently amended) The method of claim 122, wherein the one or more identifiers ~~unique identifier~~ is inserted into the acknowledgement number field of the TCP header.

Claim 125. (Currently amended) The method of claim 118, wherein the data ~~IP~~ packet is a UDP packet that is part of a UDP communication and wherein the one or more identifiers ~~unique identifier~~ is inserted into the UDP packet.

Claim 126. (Original) The method of claim 118 further comprising the step of recording an unauthorized communication attempt from the source node.

Claim 127. (Original) The method of claim 118 further comprising the step of notifying a network administrator of an unauthorized communication attempt from the source node.

Claim 128. (Original) The method of claim 118 further comprising the step of logging the communication attempt from the source node to the destination node.

Claim 129. (Currently amended) The method of claim 118 further comprising the step of encrypting the one or more identifiers ~~unique identifier~~ before inserting the one or more identifiers ~~unique identifier~~ into the data ~~IP~~ packet.

Claim 130. (Currently amended) The method of claim 129 further comprising the step of decrypting the one or more identifiers ~~unique identifier~~ after intercepting the modified data ~~IP~~ packet.

Claim 131. (Currently amended) The method of claim 129, wherein the one or more identifiers ~~unique identifier~~ is encrypted using at least one transformation key.

Claim 132. (Original) The method of claim 131, wherein the transformation key is selected dynamically from a table of transformation keys.

Claim 133. (Currently amended) The method of claim 132, wherein each transformation key in the table has an associated key index number, and further comprising the step of including the key index number of the transformation key used to encrypt the one or more identifiers ~~unique identifier~~ in the data ~~IP~~ packet.

Claim 134. (Currently amended) The method of claim 133 further comprising the steps of obtaining the key index number from the modified data ~~IP~~ packet, identifying the transformation key associated with the key index number, and decrypting the one or more identifiers ~~unique identifier~~ using the identified transformation key.

Claim 135. (Currently amended) The method of claim 118, wherein the source node is permitted to communicate with the destination node if the one or more identifiers ~~unique identifier~~ matches one of a plurality of authorized identifiers associated with the destination node.

Claim 136. (Currently amended) The method of claim 118, wherein the one or more identifiers ~~unique identifier~~ identifies both the UID and the SID and wherein the source node is permitted to communicate with the destination node if both the UID and the SID are authorized to communicate with the destination node.

Claim 137. (Currently amended) The method of claim 118, wherein the source node is not permitted to communicate with the destination node if the one or more identifiers ~~unique identifier~~ is not included within the modified data ~~IP~~ packet.

Claim 138. (Currently amended) The method of claim 118, wherein the step of permitting the communication attempt is made based on receipt of a single modified data packet ~~inserting the unique identifier of the source node into the IP packet does not require any superfluous IP packets to be sent as part of the communication attempt~~.

Claim 139. (Cancelled).

Claim 140. (Currently amended) A method of monitoring an electronic communication ~~communications~~ between a source node and a destination node within a computer network, ~~the electronic communications compliant with Internet Protocol (IP) standards,~~ comprising the steps of:

after the construction of but before the sending of a data packet from the source node to the destination node as part of the electronic communication, intercepting the data packet at the source node;

assigning one or more identifiers to the electronic communication;

inserting the one or more identifiers assigned to the electronic communication into a header of the data packet to create a modified data packet; and, thereafter

intercepting the modified data packet within the computer network after it has been sent by the source node but before it reaches the destination node;

~~assigning a unique and non-IP address identifier to the source node;~~

~~inserting the identifier assigned to the source node into a standard field of an IP packet, the IP packet being originated by the source node as part of an electronic communication with the destination node;~~

~~intercepting the IP packet transmitted by the source node before it reaches the destination node;~~

~~extracting the identifier from the IP packet; and~~

extracting the one or more identifiers from the header of the modified data packet; and thereafter:

logging the one or more identifiers ~~identifier~~ extracted from the header of the modified data ~~IP~~ packet in a database; and

forwarding the modified data ~~IP~~ packet to the destination node.

Claim 141. (Currently amended) The method of claim 140 wherein the one or more identifiers include at least one of a user identifier (UID) and a system identifier (SID), wherein the UID is associated with a specific authorized user of the source node who is identified as initiating the electronic communication and wherein the SID is associated with computer hardware of the source node initiating the electronic communication ~~identifier identifies at least one of a user identification (UID) and a system identification (SID), wherein the UID uniquely identifies a specific, authorized user of the source node and wherein the SID is constant and uniquely identifies a specific computing device of the source node~~.

Claim 142. (Currently amended) The method of claim 141, wherein the one or more identifiers includes ~~identifier identifies~~ both the UID and the SID and further comprising the steps of comparing the UID with a plurality of authorized UIDs associated with the destination node, comparing the SID with a plurality of authorized SIDs associated with the destination node, and taking further action based on the comparisons.

Claim 143. (Cancelled).

Claim 144. (Currently amended) The method of claim 140, wherein the step of inserting the one or more identifiers into the header of the data packet ~~identifier into the standard~~

~~field of the IP packet~~ includes adding the one or more identifiers ~~identifier~~ to additional information already contained in the header ~~standard field~~.

Claim 145. (Currently amended) The method of claim 140, wherein the step of inserting the one or more identifiers into the header of the data packet ~~identifier into the standard field of the IP packet~~ includes replacing information already contained in the header ~~standard field~~ with the one or more identifiers ~~identifier~~.

Claim 146. (Currently amended) The method of claim 140, wherein the data ~~IP~~ packet is a SYN packet of a TCP/IP communication.

Claim 147. (Currently amended) The method of claim 141, wherein the SID is computed based on one or more constant identifiers obtained from the computer hardware of the source node ~~146, wherein the identifier is inserted into a header of the SYN packet~~.

Claim 148. (Currently amended) The method of claim 146 ~~147~~, wherein the header is the TCP header of the SYN packet.

Claim 149. (Currently amended) The method of claim 148, wherein the one or more identifiers is inserted into ~~standard field is~~ the sequence number field of the TCP header.

Claim 150. (Currently amended) The method of claim 148, wherein the one or more identifiers is inserted into ~~standard field is~~ the acknowledgement number field of the TCP header.

Claim 151. (Currently amended) The method of claim 146 ~~147~~, wherein the header is the IP header of the SYN packet.

Claim 152. (Currently amended) The method of claim 140, wherein the data ~~IP~~ packet is a UDP packet that is part of a UDP communication and wherein the one or more identifiers ~~unique identifier~~ is inserted into the UDP packet.

Claim 153. (Currently amended) The method of claim 140 further comprising the step of encrypting the one or more identifiers ~~unique identifier~~ before inserting the one or more identifiers ~~unique identifier~~ into the data ~~IP~~ packet.

Claim 154. (Currently amended) The method of claim 153 further comprising the step of decrypting the one or more identifiers ~~unique identifier~~ after intercepting the modified data ~~IP~~ packet.

Claim 155. (Currently amended) The method of claim 153, wherein the one or more identifiers ~~unique identifier~~ is encrypted using at least one transformation key.

Claim 156. (Original) The method of claim 155, wherein the transformation key is selected dynamically from a table of transformation keys.

Claim 157. (Currently amended) The method of claim 156, wherein each transformation key in the table has an associated key index number, and further comprising the step of including the key index number of the transformation key used to encrypt the one or more identifiers ~~unique identifier~~ in the data ~~IP~~ packet.

Claim 158. (Currently amended) The method of claim 157 further comprising the steps of obtaining the key index number from the modified data ~~IP~~ packet, identifying the transformation key associated with the key index number, and decrypting the one or more identifiers ~~unique identifier~~ using the identified transformation key.

Claim 159. (Currently amended) The method of claim 140 wherein the step of logging the one or more identifiers ~~identifier~~ further comprises the step of logging a portion of the

electronic communication from the source node to the destination node in the database in association with the one or more identifiers ~~identifier~~.

Claim 160. (Currently amended) The method of claim 140 wherein the step of logging the one or more identifiers ~~identifier~~ further comprises the step of logging the modified data ~~IP~~ packet ~~from the source node to the destination node~~ in the database in association with the one or more identifiers ~~identifier~~.

Claim 161. (Original) The method of claim 140 further comprising the step of notifying a network administrator of the electronic communication from the source node to the destination node.

Claim 162. (Currently amended) The method of claim 140 further comprising the step of comparing the one or more identifiers ~~identifier~~ with a plurality of authorized identifiers associated with the destination node.